

GRASS routes

Special Beef Research Edition

April 1999

New beef research projects approved for Alberta producers

Ten more research projects have been funded by the Canada Alberta Beef Industry Development Fund (CABIDF) and more are on the way for 1999.

Ten new research projects, geared specifically for the needs of Alberta's beef industry, are now underway thanks to support from the Canada Alberta Beef Industry Development Fund (CABIDF). Over \$2 million has been allocated to studies which pull together some of Canada's best beef research scientists and tackle some of the most significant issues and opportunities for the industry today and tomorrow.

As a recap, CABIDF is one of the province's largest beef research efforts ever. The \$16.4 million fund is made up of equal contributions of \$8.2 million from the federal and provincial governments. All CABIDF dollars go to research projects that address specific needs of the Alberta beef industry.

Funding decisions are made by a producer committee selected to represent the broad spectrum of Alberta's cattle business. They are supported by research advisors from the federal and provincial governments and a representative of the Alberta Agricultural Research Institute (AARI). CABIDF has no staff. As the organization representing all cattle producers in the province, the Alberta Cattle Commission (ACC) administers the fund. AARI manages the actual research proposal process.



Funding is allocated in several review phases. To date, three phases of funding have been completed and 38 projects have been approved. Additional rounds of funding are now scheduled for 1999 and 2000.

"The research projects selected will directly benefit all aspects of the beef industry," says CABIDF chair and cow/calf operator Larry Helland. "To ensure this, projects chosen address five specific areas: animal health, cow/calf, feedlot, intellectual resources and manure/sustainability."

New projects

A snapshot of the 10 new research projects approved shows the range of projects producers can look forward to:

- **New grasses could extend grazing season, save feed costs.** Extending the grazing season and reducing winter feeding costs remain high priorities for the beef industry. The key to this cost saving for Western Canada's beef producers could be found in a group of grasses, some of which are traditionally grown species in Western Canada, while others are new. Research has shown that some of these grasses stay green longer in the fall and provide better quality grazing material. Principal researchers: Dr. Bruce Coulman, Agriculture and Agri-Food Canada (AAFC), Saskatoon Research Centre and Dr. Scott Wright, Alberta Agriculture, Food and Rural Development (AAFRD), Western Forage Beef Group. Funding allocation: \$210,261.

• Study will define stress levels in beef cattle

production. Most beef producers know intuitively if their animals are stressed. But producer intuition and subjective analysis may be preventing producers from getting the optimum production benefits and peace of mind that comes from effectively handling animals. As well, subjective approaches often don't stand up to challenges and tough questions from a society increasingly concerned about animal welfare. Researchers want to gather solid facts on stress, based on normal activities during beef production. Principal researcher: Dr. Gerry Mears, AAFC, Lethbridge Research Centre. Funding allocation: \$170,680.

• Study will offer solutions to feedlot manure odour.

With the rapid growth of the beef feedlot industry in Alberta comes the need to ensure the environment is protected in the process. Preserving air quality and reducing odour from feedlot manure is one part of the big picture of developing strategies for sustainable manure management. The purpose of this research is to study gas and odour emissions from feedlot manure and to suggest ways to reduce those emissions. Principal researcher: Dr. Sean McGinn, AAFC, Lethbridge Research Centre. Funding allocation: \$343,710.

• Study aims to enhance efficiency of sick animal

detection. Although scientists have made significant strides in feedlot disease prevention and treatment over the last several years, one of the major obstacles that remains – the detection of sick animals – is still a subjective process, based primarily on the experienced eyes of pencheckers. Researchers in this project are examining a means by which tests for special blood proteins could lead to a more definitive assessment of sick animals. This test could ultimately save producers money by speeding up the

detection process, reducing treatment costs and reducing the numbers of animals receiving medical treatment. Principal researcher: Dr. Kee Jim, Feedlot Health Management Services. Funding allocation: \$55,642.

• New forage offers an alternative for silage production

For years, barley has been the silage of choice for most Alberta beef producers. But a forage breeder at the AAFC Lethbridge Research Centre has come up with an exciting new option – a perennial that has the potential to reduce the cost of silage production while extending the grazing season. Researchers will study Perennial Cereal rye (PC rye). Three years of previous work has shown that the crop, a cross between an annual rye and a perennial grass, is similar to barley in terms of nutrient content, silage quality and yield, but has the production advantages of a perennial crop. Principal researcher: Dr. Surya Acharya, AAFC, Lethbridge Research Centre. Funding allocation: \$281,922.

• Study follows paths of manure nutrients to surface

water. Researchers are digging deep underground, tracking nutrients from manured fields to determine how much nitrogen and phosphorus reaches surface water, and which pathways, either above or below ground, the nutrients follow to get there. This research is expected to provide scientific data to help ensure manure management legislation is drafted in a way that is fair to the beef industry. The research will also help direct the livestock industry's resources towards the most effective technologies to mitigate surface water impact. Principal researcher: Dr. Cathryn Ryan, University of Calgary. Funding allocation: \$57,640.

• Researchers link protein levels to peak feedlot

performance. Beef producers know the importance of fine-tuning protein levels in feedlot diets to improve performance. However, much of the information from studies based on the industry in Western Canada has become outdated and most other available information is based on feeding strategies common to Eastern Canada and the United States. Researchers are conducting a study on protein requirements for feedlot steers and calves fed barley-based diets in Alberta. Scientists intend to provide solid numbers on protein levels to optimize performance while keeping feed costs manageable. Principal researcher: Dr. Tim Guichon, Feedlot Health Management Services. Funding allocation: \$603,438.

• High-tech tool provides enhanced test

for BVD. Bovine viral diarrhoea (BVD) is a disease that can have devastating effects on herd health, sometimes causing abortions, infertility, congenital deformities, and the occurrence of persistently infected calves born to infected cows. One challenge facing the beef industry is

Summary - new projects approved

PROJECT/CATEGORY

RESEARCHER

TOTAL \$ FUNDS

Animal Health

Study will define stress levels in beef cattle production	Dr. Gerry Mears	\$ 170,680
High-tech tool provides enhanced test for BVD	Dr. Dirk Dereg	\$ 34,300
Specialized molecules could enhance vaccination strategy	Dr. Dale Godson	\$ 77,841
Study aims to enhance efficiency of sick animal detection	Dr. Kee Jim	\$ 55,642

Cow/Calf

New grasses could extend grazing season, save feed costs	Dr. Bruce Coulman	
	Dr. Scott Wright	\$ 210,261
New forage offers an alternative for silage production	Dr. Surya Acharya	\$ 281,922

Feedlot

Researchers link protein levels to peak feedlot performance	Dr. Tim Guichon	\$ 603,438
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Manure/Sustainability

Study will offer solutions to feedlot manure odour	Dr. Sean McGinn	\$ 343,710
Study follows paths of manure nutrients to surface water	Dr. Cathryn Ryan	\$ 57,640
Scientists develop tools to manage manure phosphorus	Dan Heaney, Douwe Vanderwel	\$ 313,000

detecting persistently infected calves is that conventional testing methods can lead to false negative results because of interference by colostral antibodies when animals are tested at less than three months of age. Researchers are studying the effectiveness of a polymerase chain reaction (PCR) test to identify persistently infected carriers of BVD among colostrum-fed calves. Principal researcher: Dr. Dirk Deregt, Animal Disease Research Institute, Canadian Food Inspection Agency. Funding allocation: \$34,300.

• **Specialized molecules could enhance vaccination strategy.** Scientists are tapping into the intricate communication network of the immune system, hoping to enhance the efficiency of vaccines. Using a specific molecule called "interleukin 6," they will try to place a strong line of defense right where viruses and bacteria launch their attack on an animal – at the mucosal surfaces of the respiratory and intestinal tracts. Researchers will test the efficiency of using

interleukin 6 to improve the effectiveness of vaccines. In the immune system, interleukin 6 is one molecule used by leukocytes or white blood cells to communicate with each other. Principal researcher: Dr. Dale Godson, University of Saskatchewan, Veterinary Infectious Disease Organization (VIDO). Funding allocation: \$77,841.

• **Scientists develop tools to manage manure phosphorus.** Care for the environment and optimizing the benefits of resources are key to ensuring sustainable growth in beef production. Researchers in this project are conducting a detailed study of manure phosphorus. They hope to determine solid numbers that could be developed into practical management tools for producers and possibly be used as input for new manure management regulations in Alberta. Principal researchers: Dan Heaney and Douwe Vanderwel, AAFRD. Funding allocation: \$313,000.

Get more information on this research

One of the most common complaints is that research results don't get passed on to producers and industry. That's something the CABIDF committee wanted to overcome with this Fund, says chair Larry Helland.

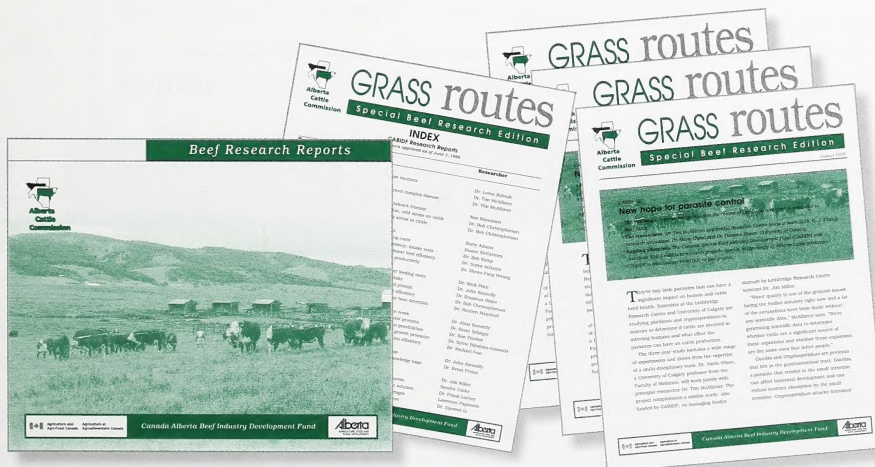
The CABIDF process ensures any Alberta cattle producer or anyone in industry can access this research over the duration of the Fund.

Research reports which provide an introduction to each project funded have been completed. These reports, compiled in a handy file folder for easy storage and access, are based on personal interviews with researchers and outline the results expected. They are available free-of-charge from the Alberta Cattle Commission, Suite 216, 6715-8 Street N.E., Calgary, Alberta T2E 7H7, phone: (403) 275-4400, fax: (403) 274-0007, email: accfeedback@cattle.ca.

"Producers who sign up to receive these free reports will automatically receive future additional reports on all

new projects funded," says Helland.

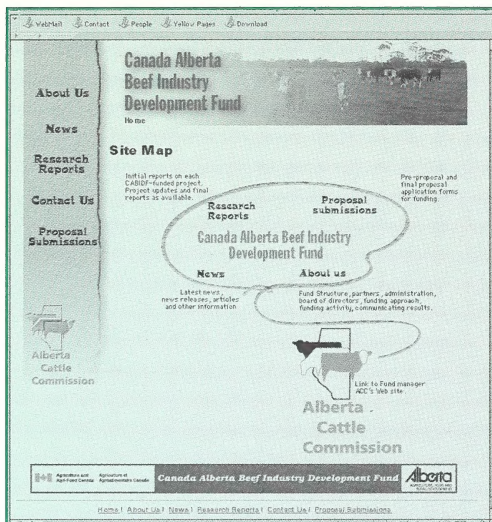
As well, to ensure industry is kept informed, news releases announcing Fund activities are distributed to media, industry associations, extension and beef producer associations that communicate directly with producers.



Reports (right) are prepared on each project and come with an Index Reference page, in a handy file folder (left).

New Web site link with industry

CABIDF has also launched a comprehensive new Internet Web site. The Web site includes the latest information on the Fund as well as its mandate, structure, administration, all research projects funded to date and the latest Fund news.



"While not all cattle producers have access to the Internet, many people in the agriculture and food business do," Helland says. "The Internet is the fastest, most comprehensive and cost-effective way to communicate with all interested parties."

Alberta producers can access the Internet at AAFRD offices across the province.

The CABIDF Web site has been constructed in an easy-to-follow format with simple icons and graphics to speed browsing and reduce downloading time.

Here are the site's ke

About us. This section d
and partners, funding objectives and process, approved projects, as well as an introduction to the board of directors.

News. This is the place many people will hit first. The "news" section of the site lists complete copies of CABIDF news releases that have been distributed since the launch of the program. These releases are also normally distributed to media, industry and extension. On an ongoing basis, future releases and updates will be added to this section as they become available.

Copies of Special Beef Research Editions of ACC's Grass Routes are indexed here under "Newsletter." As well, resource materials supported by CABIDF, including a manure management research handbook released last fall in partnership with the Lethbridge Research Centre, are posted under "Resource Materials" on the site.

Research reports. Visitors to the site can also access copies of the research reports on all CABIDF projects funded to date. The reports, based on interviews with researchers, outline project goals and targeted results. For easy access, research reports are listed by category and are cross-referenced by researcher.

Contact us. This section is where producers can submit questions about any aspect of CABIDF. "To encourage feedback, this site was designed with producer interest and participation in mind," Helland says. Producers can access the Web site at <http://www.cattle.ca/acc>.

Proposal submissions. Those interested in submitting a research proposal can link to the Alberta Agricultural Research Institution site for application guidelines.



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Ask For More Information

As an Alberta cattle producer, you are a beneficiary of the CABIDF research program. This edition of *Grass Routes* is designed specifically to help you understand how this money is being spent and help you get the most benefit out of the research.

If you would like more information or have comments, questions or suggestions, don't hesitate to contact us.

